Chapter 15

Preapproved Wall Appendix: Specific Requirements and Details for Hilfiker Welded Wire Faced Walls

In addition to the general design requirements provided in **Appendix 15-A**, the following specific design requirements shall be met:

No HITEC evaluation report is currently available for this wall system. Design procedures for specific elements of the wall system have been provided to WSDOT in a letter dated September 15, 2003. The design procedures used by Hilfiker Retaining Walls are in full conformance with the AASHTO Standard Specifications for Highway Bridges (2002). Interim approval is given for the continued use of the AASHTO Standard Specifications as the basis for design.

Regarding the soil reinforcement material, the minimum wire size acceptable for permanent walls is W4.5. For all permanent walls, the welded wire shall be galvanized in accordance with the AAS-HTO LRFD specifications. For temporary walls, galvanization is not required, but the life of the wire shall be designed to be adequate for the intended life.

Regarding the backing mats used in the welded wire facing, the minimum clear opening dimension of the backing mat shall not exceed the minimum particle size of the wall facing backfill. The maximum particle size for the wall facing backfill shall be 6 inches.

The maximum vertical spacing of soil reinforcement shall be 24 inches. For wall heights greater than 20 ft, for the portion of the wall more than 20 ft below the wall top at the face, the maximum vertical spacing of reinforcement shall be 18 inches.

The following standard details shall be used for the Hilfiker Welded Wire Faced Wall system:









